



PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	To
PO039984	MCM001-VU		1	1 2% 10 Net 30	MT-BRASS-C360-R1.500	Brass C360 Round Bar 1,500"				12	5/29/2018	12	S076584	Stock	5/30/2018	\$ 46.56 / ft	0		\$551	
										Total:	12	12								

Plex 5/30/2018 3:41 PM Dart.Dubois.Pascal



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

**PURCHASE ORDER
PO039984**

Supplier:	MCM001-VU McMaster-Carr Supply Co, P.O. Box 7690 Chicago, IL 60680-7690 USA Phone: 330 995 5500 Fax: 330 995 9600	PO No:	PO039984
PO Date:	5/24/18	E-MAILED	
Due Date:	5/29/18		
Purchase Order Revision:			
Revision Date:			
Ship-To Contact:	Lavoie, Chantal	Phone:	clavoie@dartaero.com
Ship To:	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	Via:	Ground
		Pymt Terms:	2% 10 Net 30
		Freight Terms:	
		Special Comments:	

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	MT-BRASS-C360-R1.500	2572T63 6 ft long	Brass C360 Round Bar 1.500"	Firmed	5/29/18	12 ft	0 ft	12 ft	\$46.55667/ft	\$558.68
									MAY 30 2018	
2	8547K45	6 ft long	Tube ALT. P/N 8547K893 receive ea	Firmed	5/29/18	60 ft	0 ft	60 ft	\$34.25/ft	\$2,055.00
3	88805K74		6063 Aluminum 90° Angle, 1/8" Wall Thickness, 1/2" High x 1/2" Wide	Firmed	5/29/18	16 ft	0 ft	16 ft	\$1.36125/ft	\$21.78
									AT 18/05/18	
4	1095K41	10/pk	Zerk	Firmed	5/29/18	10 Ea	0 Ea	10 Ea	\$0.352/Ea	\$3.52
									AT 18/05/18	
5	95229A460	100/pk	Washer receive pcs	Firmed	5/29/18	100 pcs	0 pcs	100 pcs	\$0.0665/pcs	\$6.65
									AT 18/05/18	
6	MDELRINB0.750X3.000W	8739K45	M Delrin Bar, White : MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL receive ft	Firmed	5/29/18	4 ft	0 ft	4 ft	\$24.16/ft	\$96.64
									AT 18/05/18	
7	1897A59		Handle	Firmed	5/29/18	4 Ea	0 Ea	4 Ea	\$4.56/Ea	\$18.24
									AT 18/05/18	
8	90107A029	100/pk	Flat Washer	Firmed	5/29/18	100 Ea	0 Ea	100 Ea	\$0.0825/Ea	\$8.25
									AT 18/05/18	
9	90128A265	100/pk	Socket Head Cap Screw	Firmed	5/29/18	100 Ea	0 Ea	100 Ea	\$0.1322/Ea	\$13.22
									AT 18/05/18	
10	9559K41	10/pk	O-Ring	Firmed	5/29/18	30 Ea	0 Ea	30 Ea	\$1.268/Ea	\$38.04
									AT 18/05/18	
11	97524A032	100/pk	Sealing Blind Rivet receive ea	Firmed	5/29/18	200 Ea	0 Ea	200 Ea	\$0.0982/Ea	\$19.64
									AT 18/05/18	
12	98002A202	10/pk	Binding Post	Firmed	5/29/18	10 Ea	0 Ea	10 Ea	\$0.415/Ea	\$4.15
									AT 18/05/18	

DAS
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9-89

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
13	98380A473	10/pk	Dowel Pin	Firmed	5/29/18	20 Ea	✓ 25 Ea	20 Ea	\$0.837/Ea AT 18/05/29	\$16.74
14	98381A510	50/pk	Pin	Firmed	5/29/18	50 Ea	✓ 50 Ea	50 Ea	\$0.214/Ea AT 18/05/29	\$10.70
15	99908A102	50/pk	Flande Locknut, Steel	Firmed	5/29/18	50 Ea	✓ 50 Ea	50 Ea	\$0.2526/Ea AT 18/05/29	\$12.63
16	C10-35	90576A118 50/pk	Cage Bumper Nut	Firmed	5/29/18	50 pcs	✓ 50 pcs	50 pcs	\$0.1828/pcs AT 18/05/29	\$9.14
17	MT-O1-R0.750	8893K19 6 FT long	Tool Steel Round Bar 0.750 dia. receive ft	Firmed	5/29/18	18 ft	✓ 18 ft	18 ft	\$5.98/ft AT 18/05/29	\$107.64
18	RBT18561-31	8485T13	10X Magna-Lite	Firmed	5/29/18	6 Ea	✓ 6 Ea	6 Ea	\$26.29/Ea AT 18/05/29	\$157.74
19	D2484P	91343A100 10/pk	Lock Nut	Firmed	5/29/18	50 pcs	✓ 50 pcs	50 pcs	\$0.363/pcs AT 18/05/29	\$18.15
20	12335A13	10 ft long	Edge Grip	Firmed	5/29/18	10 Ea	✓ 10 Ea	10 Ea	\$2.43/Ea AT 18/05/29	\$24.30
21	8695K712		Polyurethane Rod 3/8 Dia., 48" Long, 80A (HARD)	Firmed	5/29/18	4 ft	✓ 4 ft	4 ft	\$10.035/ft AT 18/05/29	\$40.14

Grand Total: \$3,240.99

Order Notes

Procurement Quality Clauses
 A005 RIGHT OF ENTRY
 A016 PERSONNEL QUALIFICATION
 A026 CERTIFICATION OF MATERIAL CONFORMANCE
 A032 DOCUMENT SPECIAL REQUIREMENTS
 A033 STATEMENT OF CONFORMITY/TEST RECORDS FOR NAS, AN and MS FASTENERS
 A040 NOTIFICATION OF QUALITY ESCAPE
 A041 QUALITY MANAGEMENT SYSTEM
 A042 DART NOTIFICATION BY SUPPLIER
 A043 RETENTION OF QUALITY DOCUMENTS
 A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
 A049 SUPPLIER AWARENESS



Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 5/24/18 2:48 PM dart.lavoie.chantal

200 Aurora Industrial Pkwy
Aurora, OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO039984

Order Placed By
Chantal Lavoie

McMaster-Carr Number
4088649-04

Page 1 of 2
05/29/2018

Line	Product	Ordered	Shipped
1	2572T63 Ultra-Machinable 360 Brass Rod with Certification, 1-1/2" Diameter, 6 Feet Long	2 Each	2

Shipped separately from our Cleveland warehouse on 05/24

3	88805K74 Architectural 6063 Aluminum 90 Degree Angle, 1/8" Wall Thickness, 1/2" High x 1/2" Wide, 8 Feet Long	2 Each	2
4	1095K41 Zinc-Plated Steel Grease Fitting, Straight, 1/4"-28 SAE-LT Male, 35/64" Overall Length	1 Pack	1
5	95229A460 Cadmium-Plated Steel MIL. Spec. Washer for 5/16" Screw Size, NAS 1149-F0563P	1 Pack	1
6	8739K45 White Delrin Acetal Resin Oversized Bar, 3/4" Thick, 3" Wide, 4' Length	4 Feet	4
7	1897A59 Oval Grip Pull Handle with Threaded Holes, Aluminum, 4-9/16" Center-to-Center Width	4 Each	4
8	90107A029 316 Stainless Steel Washer for 1/4" Screw Size, 0.281" ID, 0.625" OD	1 Pack	1
9	90128A265 Zinc-Plated Alloy Steel Socket Head Screw, M6 x 1 mm Thread, 25 mm Long	1 Pack	1
10	9559K41 Ultra-Chemical-Resistant Rigid PTFE O-Ring, 1/8 Fractional Width, Dash Number 219	3 Packs	3
11	97524A032 Sealing Blind Rivets, Aluminum, Domed Head, with Aluminum Mandrel, 1/8" Diameter, 0.425" Long	2 Packs	2
12	98002A202 Steel Binding Barrels and Screws, 10-24 Thread Size, for 3/8"-1/2" Material Thickness	1 Pack	1
13	98380A473 416 Stainless Steel Dowel Pins, 1/8" Diameter, 3/4" Long	1 Pack	1
14	98381A510 Dowel Pin, Alloy Steel, 3/16" Diameter, 1" Long	1 Pack	1

Packing List

200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO039984
Order Placed By
Chantal Lavoie
McMaster-Carr Number
4088649-04

Page 2 of 2
05/29/2018

Line	Description	Ordered	Shipped
15	99908A102 High-Strength Steel Nylon-Insert Flange Locknut, Class 10, Zinc Yellow-Chromate Plated, M8 x 1.25 mm Thread	1 Pack	1
16	90576A118 Medium-Strength Steel Nylon-Insert Locknut, Class 8, Zinc-Plated, M10 x 1.5 mm Thread	1 Pack	1
17	8893K19 Tight-Tolerance Multipurpose O1 Tool Steel Rod, 0.7500" Diameter, 6 Feet Long	3 Each	3
18	8485T13 Incandescent-Illuminated Magnifying Glass, 10x, 1-1/4" Long x 1-3/8" Wide Lens	6 Each	6
19	91343A100 316 Stainless Steel Serrated Flange Locknut, Super-Corrosion-Resistant, 1/4"-20 Thread Size	5 Packs	5
20	12335A13 Water- & Weather-Resistant Rubber Push-on Seal with Bulb on Top, Hollow, for 3/64"-1/16" Edge, 10' Long	10 Feet	10
21	8695K712 Abrasion-Resistant Polyurethane Rubber Rod, 48" Long, 3/8" Diameter, 80A Durometer	1 Each	1

Expected to ship

2	8547K893 Tube Made From PTFE, 1" OD X 1/2" ID	60 Feet	60 May 31-Jun 7
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-Brass-C360-R1.500
 DATE: MAY 30 2018

PO / BATCH NO.: 039984/5026584

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.500
 THICKNESS RECEIVED: 1.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Astm B16</i>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>PO# 039984 Part# 2572763</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89</u> <u>MAY 30 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

REV	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-732	17/11/22	VM	WM

PURCHASE MATERIAL:

C360 BRASS
ASTM B16

SPECIFICATION:
PART NUMBER:

EXAMPLE:

MT-BRASS-C360-R-[D.DDD]

WHERE D.DDD IS DIAMETER IN INCHES

MT-BRASS-C360-R-0.250

TOLERANCES PER MANUFACTURER SPECIFICATIONS

DART AEROSPACE Hawthorne, Ontario, Canada	
BRASS C360 ROUND BAR	
DESIGN NO.	REV
MT-BRASS-C360-R	A
DRAWN BY: VM.11/01/2017	XX. $\frac{1}{2}$.035
CHECKED: SAC.11/06/2017	FRACTIONAL & 1/16
MTG. APPROV: DOP.11/02/2017	1. DIMENSIONS ARE IN INCHES 2. UNLESS OTHERWISE SPECIFIED 3. NUMBER OF DIGITS OPEN 4. ASME Y14.5M-2009
APPROVED: VM.11/02/2017	3. DIMENSIONAL LIMITS APPLY
DATE: 11/01/2017	NTS
SCALE: N/A LBS	WEIGHT: N/A LBS
SHEET 1 OF 1	

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8	7	6	5	4	3	2	1
A	B	C	D				

CERTIFICATE OF TEST

Customer COPHD BRASS SALES INC.

Invoice No 63032

P.O. No 54003

MILL DAECK KOREA

Country of Metting & SOUTEA
Manufacturing

No 2018-03-20-040
Date 03/20/18

Commodity FREE CUTTING BRASS C3600 H02 (HALF HARD) IN 12 FT L
Spec RER ASTM B 1616M REV 2010, B249, ROHS COMPLIANT

Job No.	18-04-	DESCRIPTION	Quantity	Temper	Remarks	B/D No.	Mat No.	Inspection Result	
LINE	Lot No.	SIZE	Pieces	Wt. Lbs	-	-	-	Dimension Surface	
0010	044041	1/16" (+-0.002) DIA, ROUND	1,612	H02	-	1,2	CURD00248	GOOD	
0010	070301	1/16" (+-0.002) DIA, ROUND	333	H02	-	3	CURD00248	GOOD	
0020	057481	3/4" (+-0.002) DIA, ROUND	5,771	H02	-	CURD00117	GOOD	GOOD	
0030	057491	13/16" (+-0.002) DIA, ROUND	1,958	H02	-	CURD005645	GOOD	GOOD	
0040	057501	7/8" (+-0.002) DIA, ROUND	4,030	H02	-	CURD00345	GOOD	GOOD	
0050	057511	1" (+-0.002) DIA, ROUND	3,888	H02	-	CURD01097	GOOD	GOOD	
0060	057521	1-1/8" (+-0.0025) DIA, ROUND	1,936	H02	-	CURD01264	GOOD	GOOD	
0070	057531	1-1/4" (+-0.0025) DIA, ROUND	1,744	H02	-	CURD01128	GOOD	GOOD	
0080	057541	1-5/16" (+-0.0025) DIA, ROUND	3,965	H02	-	CURD00067	GOOD	GOOD	
0090	057421	1-3/8" (+-0.0025) DIA, ROUND	1,846	H02	-	CURD01295	GOOD	GOOD	
0100	057431	1-1/2" (+-0.0025) DIA, ROUND	3,764	H02	-	CURD00360	GOOD	GOOD	
0110	057441	1-5/8" (+-0.0025) DIA, ROUND	1,838	H02	-	CURD00811	GOOD	GOOD	
0120	057451	1-3/4" (+-0.0025) DIA, ROUND	1,704	H02	-	CURD00967	GOOD	GOOD	
0130	057461	2" (+-0.0025) DIA, ROUND	1,666	H02	-	CURD00983	GOOD	GOOD	
0140	057471	2-1/8" (+-0.003) DIA, ROUND	1,882	H02	-	CURD00122	GOOD	GOOD	
Chemical/Physical Composition, %	Spec	Cu	Pb	Fe	-	Zn	SIC	T.S. ksi Y.S. ksi E/L (%) HRB	
0010	04404-1	60.0-63.0	2.50-3.00	0.35 max	-	Rem.	Ammonia Vapor	-	-
0010	07030-1	60.0920	2.8066	0.2078	-	Rem.	GOOD	61 47 29.2	70.4
0020	05748-1	60.6587	2.6557	0.1390	-	Rem.	GOOD	59 48 28.9	68.9
0030	05749-1	60.1518	2.7264	0.1263	-	Rem.	GOOD	61 42 29.0	69.8
0040	05750-1	60.4490	2.6130	0.1618	-	Rem.	GOOD	59 45 30.1	69.5
0050	05751-1	60.4181	2.6498	0.1820	-	Rem.	GOOD	59 41 32.1	68.6
0060	05752-1	60.3601	2.6920	0.1716	-	Rem.	GOOD	56 41 30.0	67.9
0070	05753-1	60.4498	2.6481	0.1816	-	Rem.	GOOD	56 39 35.8	67.9
0080	05754-1	60.4498	2.6481	0.1816	-	Rem.	GOOD	54 39 36.6	66.7
0090	05742-1	60.6576	2.6718	0.1765	-	Rem.	GOOD	54 38 36.5	63.3
0100	05743-1	60.3479	2.6787	0.1837	-	Rem.	GOOD	56 34 39.0	62.4
0110	05744-1	60.4735	2.6706	0.1452	-	Rem.	GOOD	55 35 36.4	62.3
0120	05745-1	60.4735	2.6706	0.1452	-	Rem.	GOOD	55 31 41.8	56.3
0130	05746-1	60.1655	2.7427	0.1472	-	Rem.	GOOD	55 33 40.4	55.2
0140	05747-1	60.1705	2.8195	0.1652	-	Rem.	GOOD	52 30 44.4	58.0
								52 30 41.3	58.4

WE CERTIFY THAT ABOVE INFORMATION IS TRUE AND OUR MATERIAL MEETS THE ABOVE ASTM SPECIFICATIONS.

MERCURY FREE

SIGNED FOR DAE CHANG IND.

Lloyd's Pacific International, Inc.

CERTIFICATE OF TEST

Customer COPPER AND BRASS SALES INC.

Invoice No 630325K18

P.O. No 5400382598

MILL DAECHANG, KOREA

Country of Metting & SOUTH KOREA

No 2018-03-20-040

Date 03/20/18

Commodity FREE CUTTING BRASS C3600 H02 (HALF HARD) IN 12 FT L

Spec PER ASTMB16/16M REV 2010, B249, ROHS COMPLIANT

Job No.	LINE	Lot No.	DESCRIPTION	Quantity	Temper	Remarks	B/D No.	Mat No.	Inspection Result	
									-	Dimension Surface
0010	04404-1		11/16" (+/-0.002) DIA, ROUND				1,612	H02	-	1,2
0010	07030-1		11/16" (+/-0.002) DIA, ROUND	333	H02				3	CURD00248
0020	05748-1		3/4" (+/-0.002) DIA, ROUND				5,771	H02		CURD00248
0030	05749-1		3/16" (+/-0.002) DIA, ROUND				1,958	H02		CURD00117
0040	05750-1		7/8" (+/-0.002) DIA, ROUND	4,030	H02					CURD00545
0050	05751-1		1" (+/-0.002) DIA, ROUND	3,888	H02					CURD00345
0060	05752-1		1-1/8" (+/-0.002) DIA, ROUND	1,936	H02					CURD01097
0070	05753-1		1-1/4" (+/-0.002) DIA, ROUND	1,744	H02					CURD01264
0080	05754-1		1-5/16" (+/-0.002) DIA, ROUND	3,965	H02					CURD01128
0090	05742-1		1-3/8" (+/-0.002) DIA, ROUND	1,846	H02					CURD00067
0100	05743-1		1-1/2" (+/-0.002) DIA, ROUND	3,764	H02					CURD02295
0110	05744-1		1-5/8" (+/-0.002) DIA, ROUND	1,838	H02					CURD00811
0120	05745-1		1-3/4" (+/-0.002) DIA, ROUND	1,704	H02					CURD00967
0130	05746-1		2" (+/-0.0025) DIA, ROUND	1,566	H02					CURD00983
0140	05747-1		2-1/8" (+/-0.003) DIA, ROUND	1,882	H02					CURD00122
Chemical/Physical Composition %		Spec	CU	Pb	Fe	-	Zn	SiC	T.S., KSI	Y.S., KSI
0010	04404-1		60.0-63.0	2.50-3.00	0.35 max	-	Rem.	Ammonia Vapor	-	-
0010	07030-1		60.0920	2.8066	0.2078	-	Rem.	GOOD	61	47
0020	05748-1		60.6587	2.6557	0.1390	-	Rem.	GOOD	59	48
0030	05749-1		60.1518	2.7264	0.1263	-	Rem.	GOOD	61	42
0040	05750-1		60.4490	2.6130	0.1618	-	Rem.	GOOD	59	45
0050	05751-1		60.4181	2.6498	0.1820	-	Rem.	GOOD	59	41
0060	05752-1		60.3601	2.6920	0.1716	-	Rem.	GOOD	56	41
0070	05753-1		60.4498	2.6481	0.1816	-	Rem.	GOOD	56	39
0080	05754-1		60.4498	2.6481	0.1816	-	Rem.	GOOD	54	39
0090	05742-1		60.6576	2.6718	0.1765	-	Rem.	GOOD	54	38
0100	05743-1		60.3479	2.6787	0.1837	-	Rem.	GOOD	56	34
0110	05744-1		60.4785	2.6706	0.1452	-	Rem.	GOOD	55	35
0120	05745-1		60.4785	2.6706	0.1452	-	Rem.	GOOD	55	31
0130	05746-1		60.1615	2.7427	0.1472	-	Rem.	GOOD	52	33
0140	05747-1		60.1705	2.8195	0.1652	-	Rem.	GOOD	52	30
MERCURY FREE									41.3	58.4

WE CERTIFY THAT ABOVE INFORMATION IS TRUE AND OUR MATERIAL MEETS THE ABOVE ASTM SPECIFICATIONS.

SIGNED FOR DAE CHANG IND.